

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in this application.

Listing of Claims:

1. (Currently amended) A self-propelled ~~Mini~~ or Micro UAV configured for aerodynamic flight at flight speeds in the range between 10 m/s to 20 m/s at Reynolds numbers in the range between about 20,000 and about 300,000, and comprising a fore wing and an aft wing in tandem close-coupled arrangement,

wherein at least a majority of a trailing edge of said fore wing is spaced from a leading edge of said aft wing by a positive gap,

wherein an average value for said gap is less than a root chord of said fore wing,

wherein said front wing is unconnected to said aft wing,

wherein said aft wing has side panels and control surfaces on at least one of said aft wing and said side panels, and tapered planform with positive sweep, said fore wing has non-positive trailing edge sweep, the fore wing and aft wing being disposed at different heights, and said arrangement being free of additional wings or tail arrangement, said Reynolds numbers being based on a characteristic chord length of ~~a main wing of said UAV, said main wing being~~ one of said fore wing and said aft wing.

2. (Previously presented) The UAV of claim 1, wherein said fore wing has straight trailing edges with negative sweep angle.

3. (Previously presented) The UAV of claim 2, wherein said fore wing has negative sweep.
4. (Previously presented) The UAV of claim 1, further comprising a fuselage.
5. (Previously presented) The UAV of claim 4, wherein said fore wing is mounted on the upper side of said fuselage on at least one pylon.
6. (Previously presented) The UAV of claim 5, wherein said fore wing is disposed higher than said aft wing at least by the length of an average aft wing chord.
7. (Previously presented) The UAV of claim 1, wherein said fore wing and said aft wing partially overlap each other in plan view.
8. (Currently amended) ~~The UAV of claim 4~~ A self-propelled Micro UAV configured for aerodynamic flight at flight speeds in the range between about 10 m/s to about 20 m/s at Reynolds numbers in the range between about 20,000 and about 300,000, and comprising a fore wing and an aft wing in tandem close-coupled arrangement,
wherein at least a majority of a trailing edge of said fore wing is spaced from a leading edge of said aft wing by a positive gap,
wherein an average value for said gap is less than a root chord of said fore wing,
wherein said aft wing has side panels and control surfaces on at least one of said aft wing and said side panels, and tapered planform with positive sweep, said fore wing has

non-positive trailing edge sweep, said fore wing and said aft wing being disposed at different heights, and said arrangement being free of additional wings or tail arrangement,

wherein said Reynolds numbers are based on a characteristic chord length of one of said fore wing and said aft wing,

wherein said tandem arrangement of said fore wing and said aft wing has an overall width W and an overall length L including any control surfaces of said UAV, and the sum of planform wing areas of said tandem arrangement is at least 70% of the product $W \times L$.

9. (Previously presented) The UAV of claim 1, wherein the fore wing, the aft wing and other elements of said UAV are disposed so as to provide longitudinal aerodynamic stability.

10. (Previously presented) The UAV of claim 9, wherein said arrangement has positive pitching moment at zero lift.

11. (Previously presented) The UAV of claim 1, wherein at least one of said aft wing and said fore wing has rounded tips.

12. (Previously presented) The UAV of claim 1, wherein at least a portion of the trailing edge of said aft wing has negative or positive sweep angle.

13. (Previously presented) The UAV of claim 1, wherein said aft wing has aspect ratio between 2.5 and 4.

14. (Previously presented) The UAV of claim 1, wherein said fore wing has aspect ratio between 3 and 5.

15. (Previously presented) The UAV of claim 1, wherein planform areas of the aft wing and the fore wing are in ratio between 2:1 and 1:1.

16. (Previously presented) The UAV of claim 1, wherein said control surfaces comprise rudder control surfaces on said side panels.

17. (Previously presented) The UAV of claim 1, wherein said fore wing has side panels.

18. (Previously presented) The UAV of claim 17, wherein said fore wing has rudder control surfaces on its side panels.

19. (Previously presented) The UAV of claim 1, wherein said fore wing has control surfaces.

20. (Previously presented) The UAV of claim 1, wherein said self-propelled UAV has a tractor propeller mounted in front of said tandem arrangement.

21. (Previously presented) The UAV of claim 1, wherein at least one of said fore wing and said aft wing has non-zero dihedral angle.

22. (Previously presented) The UAV of claim 21, wherein the dihedral angles of the fore wing and of the aft wing are such that the vertical distance between wing tips of said fore wing and said aft wing is greater than the vertical distance between their respective wing roots.
23. (Previously presented) The UAV of claim 1, wherein said aft wing has twist.
24. (Previously presented) The UAV of claim 1, wherein said fore wing has twist.
25. (Previously presented) The UAV of claim 1, wherein said aft wing has positive angle of incidence.
26. (Previously presented) The UAV of claim 1, wherein said aft wing has airfoil sections with positive zero lift pitching moment.
27. (Previously presented) The UAV of claim 1, wherein the fore wing, the aft wing and other elements of said UAV are disposed so as to provide longitudinal aerodynamic instability.
28. (Previously presented) The UAV of claim 27, wherein said self-propelled UAV has a pushing propeller mounted after said tandem arrangement.

29. (Previously presented) The UAV of claim 27 having negative pitching moment at zero-lift.

30. (Currently amended) A self-propelled ~~Mini~~ or Micro UAV configured for aerodynamic flight at flight speeds in the range between 10 m/s to 20 m/s at Reynolds numbers in the range between about 20,000 and about 300,000 and comprising a fore wing and an aft wing in tandem close-coupled arrangement,

wherein a trailing edge of said fore wing is spaced from a leading edge of said aft wing by a gap,

wherein an average value for said gap is less than a root chord of said fore wing,

wherein said aft wing has first side panels and control surfaces on at least one of said aft wing and said side panels, and tapered planform with positive sweep, said fore wing has non-positive trailing edge sweep, ~~[[the]]~~ said fore wing and said aft wing being disposed at different heights, and said arrangement being free of additional wings or tail arrangement, wherein said Reynolds numbers are based on a characteristic chord length of ~~a main wing of said UAV, said main wing being~~ one of said fore wing and said aft wing, and wherein a planform area of the aft wing is not less than a planform area of the fore wing

31. (Previously presented) The UAV according to claim 30, wherein planform areas of the aft wing and the fore wing are in ratio between 2:1 and 1:1.

32. (Previously presented) The UAV according to Claim 30, wherein said tandem arrangement of said fore wing and said aft wing has an overall width W and an overall length L including any control surfaces of said UAV, and the sum of planform wing areas of said tandem arrangement is at least 70% of the product $W \times L$.

33. (Previously presented) The UAV according to claim 30, wherein said UAV is a micro-UAV and has at least one of a maximum longitudinal length and a maximum wingspan not greater than about 15cm.

34. (Previously presented) The UAV according to claim 30, wherein said UAV is a mini-UAV and has at least one of a maximum longitudinal length and a maximum wingspan between about 20cm and about 1.2m.

35. (Previously presented) The UAV according to claim 1, wherein said UAV is a micro-UAV and has at least one of a maximum longitudinal length and a maximum wingspan not greater than about 15cm.

36. (Previously presented) The UAV according to claim 1, wherein said UAV is a mini-UAV and has at least one of a maximum longitudinal length and a maximum wingspan between about 20cm and about 1.2m.

37. (Canceled)

38. (Previously presented) The UAV of claim 1, wherein said characteristic chord is an average chord taken between a root and a tip of said main wing.
39. (Previously presented) The UAV of claim 1, wherein said main wing is said aft wing.
40. (Previously presented) The UAV of claim 30, wherein said characteristic chord is an average chord taken between a root and a tip of said main wing.
41. (Previously presented) The UAV of claim 30, wherein said main wing is said aft wing.
42. (New) The UAV of claim 30, wherein the fore wing comprises second side panels, said first side panels being different from said second side panels.